

Missouri Thin STWD - Stewardship Project Specification

Projects: #1 - SMALL TREE-TOPPING and #2 – DOWN WOOD CREATION

Measure of accomplishment: Trees felled and trees topped

Quantity: 432 for Project #1, 432 for Project #2

Subdivision Numbers	1	2	3	4	5	6	8	9	10	11	12	13
Subdivision Acres	16	15	56	29	20	54	3	14	33	23	14	11
Proj. #1 -no.of trees to top	24	23	84	43	30	81	5	21	49	35	21	16
Proj. #2 -no. of trees to fall	24	23	84	43	30	81	5	21	49	35	21	16

- 1) Trees selected for treatment will consist only of plantation trees, and will be distributed following the criteria described below in the identified subdivisions.
- 2) All trees selected will be live Douglas-fir or hemlock trees. Hemlock will not be cut where this species is less than 50% of the specific treatment area. Trees selected will be sound: shall not have forked or broken tops, crooked boles, large scars, or other unique structural characteristics.
- 3) **Distribution shall be clumped or grouped. Groups and clumps shall be at least 100' from a stream or open road and at least 75' uphill and 50' downhill from any other road.**
 - a) Mingle topped trees and down wood (Tree Falling) in large clumps, but combined opening size should not exceed ½ acre; for example 120' wide and 200' long.
 - b) Clump is defined as an area containing at least 10 treated trees that are within 50' of another treated tree of the same clump. Clumped trees should be a combination of felled and topped or inoculated trees. Total amount of trees when mingling treatments shall not exceed ½ acre; Minimum size of a clump should be 10 treated trees; such as 5 felled and 5 topped. Distance between clumps with more than 10 treated trees shall be 400-800 feet.
 - c) Group is defined as 2 to 9 treated trees that are within 50' of another treated tree of the same group. Distance between groups shall be 200-400 feet.
 - d) Location of treatment areas should be along secondary ridges and gentler slopes where possible. Locate clumps first around any big leaf maple trees - if present, second around large alder (> 8" dbh) – if present, and third around one or two “dominant” live conifer trees.

Chainsaw topping: general intent is to create snags and live topped trees in equal proportion, but a ten percent tolerance is acceptable; e.g., 40% snags and 60% live topped or vice versa. (Other methods of tree topping are not permitted, such as blasting tops out.)

- 4) **1.1a: Chainsaw topping: Snag trees.** Intent is to create a dead tree/snag.
 - a) **Snag trees will have two to four live limbs over five feet in length and the snag will be at least 35' tall.**
 - b) Remove epicormic branches, limbs shorter than 5 feet and any other live limbs below treatment except the 2-4 required.
 - c) The sawed surface will have 4 grooves, each at least 4 inches deep. Grooves will be created in a tic-tac-toe grid formation.
- 5) **1.1b: Chainsaw topping: Live trees.** The intent is to promote development of a stove-pipe cavity in a live tree. Topping to the specified standards will provide good conditions for fungi that cause heart-rot, and retaining adequate amount of live limbs below topping site should keep the tree alive and allow upper most limbs to grow vertically and eventually provide cover over the developing cavity.

- a) Live trees will be in the largest size class available.
 - b) Live trees shall retain at least 15 live limbs that are at least five feet in length (intent is to keep these trees alive). Retain all epicormic branches and shorter live limbs.
 - c) Live tree diameter at topping height shall be greater than 6 inches.
 - d) Live trees will have a minimum of 1-foot of bole area above the last whorl of green limbs. This will facilitate rot development above last live whorl of branches. The sawed surface will have 4 grooves, each at least 4 inches deep. Grooves will be created in a tic-tac-toe grid formation.
 - e) Trees meeting these specifications (a, b, c and d) for Live trees will generally be dominant trees with full crowns (30-50% crown ratio).
- 6) **1.6: Tree felling**
- a) At least 70% of felled trees shall be felled side-hill (within fifty degrees of horizontal). Over-lap felled trees where possible.
 - b) Minimum diameter at breast height (dbh) of felled trees will be 10".
- 7) **Marking treated trees**
- a) **Topping: Contractor will paint topped trees** with a band of orange paint at dbh level and orange tree number above dbh level and wrap orange and white striped flagging around the trees. "Wildlife Tree" signs and numbered tags will be placed at dbh. The numbered tag will be attached with one of the nails used for the "wildlife tree" sign to minimize nail holes. Nails shall not be completely nailed into the tree to allow for continued diameter growth on all live trees.
 - b) **Tree felling: Contractor will paint stump of felled trees** with an orange number. Contractor will establish an untreated tree as the clump identification tree by wrapping orange and white striped flagging around trees and painting two bands of orange paint around a tree and painting the clump or group number on the tree; e.g., C1 or G1.
- 8) **The Contractor will furnish** paint, flagging, aluminum nails and PVC. **Government will furnish** "Wildlife Tree" signs and numbered tags.
- 9) **Contractor will map** location of each clump/group with GPS. GPS location of individual trees is not required. Coordinates are NAD 83, UTM's. Contractor must provide an electronic and written file of coordinates. Electronic transfer can be accomplished by one of three methods. All of these methods shall include coordinates and corresponding name, number, and clump number for each clump. These methods are:
- a) **Preferred method** : Provide government with a GDB file with locations of clumps from Mapsource
 - b) Contractor bring in their GPS and have coordinates with corresponding data downloaded directly to the government computer
 - c) Contractor submit a CD with spreadsheet containing X column and Y column coordinates, and a column identifying corresponding data
- 10) Contractor will label a Reference Tree at each treated subdivision that is live and easily visible from a main, drivable road. Mark with a band of orange paint and "R" painted above the band. Two pieces of orange and white striped flagging shall be tied on a branch or around the bole and shall extend a minimum of two feet, with point of tie facing the road. The contractor shall record the project name, project area number, bearing and approximate distance to the treated tree closest to the road, and the treated tree number on the flagging with a permanent marker. If the reference tree is over 200 feet from the closest treated tree, flag the route to the tree with orange and white striped flagging.

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- 11) The Contractor is REQUIRED to submit a weekly plan of work at least two days before implementing each weekly plan. This plan shall be submitted to the project Contract Administrator (CA).
- 12) The Contractor is REQUIRED to inform the project CA within 7 days of when a subdivision has been accomplished and provide a completed tree register form with signature and a map showing accurate location of clumps or groups of treated trees and their corresponding tree-numbers. See attached example of completed map and tree register form.

When: Work can occur anytime of year, with the following exceptions:

- In wind-prone areas of harvested subdivisions, allow at least 1 year after harvest to complete the felling and topping.
- **For operating restrictions, use felling restrictions described in K-G.3.1.5# PROJECT OPERATION SCHEDULE**
- Power tool use shall be restricted between April 1 and September 15 to two hours after sunrise to two hours before sunset if within 100 yards of mature or old growth forest.

Inspection details: contractor will provide inspection reports.

Inspected by a CA or other qualified inspector coordinating with wildlife biologist.

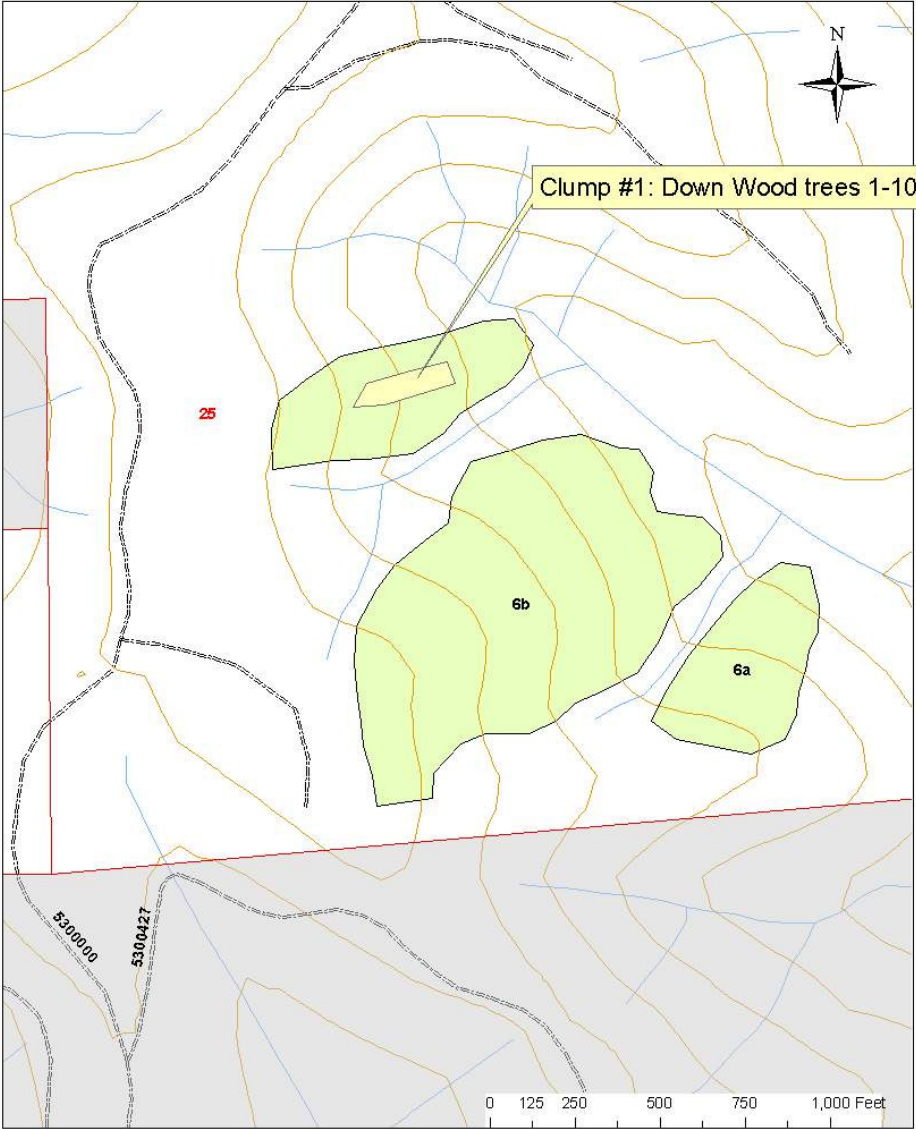
Tree registry Form: **SMALL** Saw Topping, Inoculation, **or** Tree Felling; Siuslaw NF, Central Coast RD.

Prepared by and date prepared: _____

Contract Name & Subdivision No. _____

Contract Name & Subdivision #	Treatmt Type: TT = ttap, IN=Inoculation, DW=downwood	Tree #	Tree Species treated	DBH	Top'g/Inoculation Ht	Topped/Inoculated Dia	LIVE Branches > 5' in length below treatment height	TT: live (>15 livelimbbs) or snag (4 livelimbbs). DW: horizontal or not horizontal	Inoculation: fungal species & number of dowels	CLUMP Identifier	Clump around Maple (M), large alder (A), or dominant conifer (C)	Date Treated	Worker's Name	ADDITIONAL INFORMATION, including UTM of each clump (in NAD 1983 Albers)

Example Sale - Unit 6



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EXAMPLE: Tree registry Form: Saw Topping, Inoculation, Tree Felling; Siuslaw NF, Central Coast RD. Prepared by and date: Boss Treeman Oct. 3, 2007

Contract Name & Subdivision No. Example Sale #6

Contract Name & Subdivision #	Treatmt Type: TT = trop, IN=Inoculation, DW=downwood	Tree #	Tree Species treated	DBH	Top'g/Inoculation Ht	Topped/Inoculated Dia	LIVE Branches > 5' in length below treatment height	TT: live (>15 livelimbbs) or snag (4 livelimbbs). DW: horizontal or not horizontal	Inoculation: fungal species & number of dowels	CLUMP Identifier	Clump around Maple (M), large alder (A), or dominant conifer (C)	Date Treated	Worker's Name	ADDITIONAL INFORMATION, including UTM of each clump
Example Sale 6c	TT	1	Df	16	55	8	16	LIVE	Na	C1	M	2oct07	G.Squirrel	C1: E 0000000; N 0000000
Example Sale 6c	TT	2	Df	18	50	7	18	LIVE	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	3	Df	20	55	8	20	LIVE	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	4	H	16	50	7	17	LIVE	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	5	Df	16	40	8	17	SNAG	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	6	Df	16	40	8	4	SNAG	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	7	Df	20	40	8	4	SNAG	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	8	Df	17	45	8	4	SNAG	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	TT	9	Df	19	50	9	3	SNAG	Na	C1	M	2oct07	G.Squirrel	
Example Sale 6c	DW	N/A	Df	10-16	Na	Na	Na	90% Horizontal	Na	C1	M	2oct07	G.Squirrel	9 FELLED TREES